

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS**

EX PARTE KRYUCHKOV

Application for Patent

Filed September 29, 2003

Application No. 10/674,884

FOR:

3-D REELS AND 3-D WHEELS IN A GAMING MACHINE

REPLY BRIEF

WEAVER AUSTIN VILLENEUVE & SAMPSON LLP
Attorneys for Applicants

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Signed: /Natalie Morgan/
Natalie Morgan

I. STATUS OF CLAIMS

There are a total of 41 claims pending in this application, namely claims 39, 41-45, 48-66, and 75-90. An appeal brief was filed on March 19, 2009. An Examiner's answer was mailed on June 22, 2009.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(A) Claims 39, 41-45, 48-50, 54-57, 60-64, 66, 75-84, and 86-90 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ellis (WO 02/32521 A1) ("Ellis").

(B) Claims 51-53, 58-59, 65, and 85 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ellis in view of Gauselmann (U.S. Pub. No. 2004/0048657) ("Gauselmann").

(C) Claim 60 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ellis in view of Abbott (U.S. Patent No. 7,179,166) ("Abbott").

III. ARGUMENT

The arguments set forth in the appeal brief filed March 19, 2009, are hereby maintained and incorporated by reference for all purposes.

1. Definitions

According to the MPEP, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." (MPEP § 2111).

The Examiner's Answer broadly defines "generate" as "create something: to bring something into existence of effect." (Page 7, lines 18-19). However, claim 39 recites "generating at least one of the planar rectangular surface or the curved portion of the outside of the cylinder at a first position in the 3-D gaming environment." The specification makes clear that this generating involves creating a 3-D model of a surface, such as by using a 3-D coordinate system. (Page 15, lines 5-21.) Thus, not every image or video of a three-dimensional slot reel is the result of a generating operation as recited in the claims. The generating operation recited in the claims relates to a particular technique for the creation of such an image or video. Therefore, to define "generate" as to "create something" and to argue that any image of a three dimensional slot reel is inherently the result of such a generating step is inconsistent with the specification.

Also, The Examiner's Answer broadly defines "render" as "to draw something in computer graphics." (Page 7, lines 22-23). However, claim 39 recites "rendering the

plurality of two-dimensional (2-D) images comprising the surfaces drawn with the symbols from the virtual reel strips as a game outcome presentation for the game of chance wherein information used to generate the surfaces and the 3-D gaming environment is stored in the memory device on the gaming machine.” The specification makes clear that rendering as used in the claims involves converting a surface modeled in a 3-D gaming environment to a 2-D image that can be displayed on a display screen. (Page 15, lines 5-31). Thus, rendering a plurality of 2-D images of the surfaces generated in the 3-D gaming environment involves determining or calculating a 2-D projection of a 3-D model. (Page 15, lines 5-31). In this way, rendering as used in the claims is similar to taking a photograph of a 3-D object. (Page 15, lines 5-31). Thus, not every image or video of a three-dimensional slot reel is the result of a rendering operation as recited in the claims. Instead, the rendering operation recited in the claims relates to a particular technique for the creation of such an image or video. Therefore, to define “render” as “to draw something” and to argue that any image of a three dimensional slot reel is rendered as recited in the claims is inconsistent with the specification.

Further, it is unreasonable to interpret both generating a surface in a 3-D gaming environment and rendering a plurality of images of the surface as “drawing,” since such an interpretation would make the claim redundant. The pending claims recite a method and apparatus wherein symbols are drawn on 3-D model generated in a 3-D gaming environment and wherein a plurality of 2-D images are rendered from the 3-D gaming environment for display on the display device. The Examiner’s Answer interprets “generating,” as recited in the claims, as analogous to drawing the displayed slot reel in Ellis. (Examiner’s Answer, page 8, line 10-13). The Examiner’s Answer also interprets “rendering,” as recited in the claims, as analogous to drawing. (Page 7, lines 22-23). However, if generating the surface in a 3-D gaming environment were truly analogous to displaying the slot reel in Ellis, there would be no need to also render a plurality of 2-D images of the surfaces as well as to display the 2-D images on the display device. Thus, the interpretation of “generating” and “rendering” as both analogous to drawing the slot reels in Ellis is inconsistent with the language of the claim, which recites both features related to generating and features related to rendering.

Since the interpretation of claim terms set forth in the Examiner’s Response is neither reasonable in view of the claim as a whole nor consistent with the specification, the interpretation is improper under MPEP § 2111.

2. 3-D Gaming Environment

Claim 39 recites several features related to a 3D surface modeled in a 3D gaming environment, such as for example:

b) drawing the sequence of symbols over time on a surface comprising a planar rectangular surface or a curved portion of an outside of a cylinder defined in a 3-D gaming environment, said drawing comprising;

...

viii) moving the planar rectangular surface or the curved portion of the outside of the cylinder including the second subset of the sequence of symbols from the first position to the second position in the 3-D gaming environment; wherein the first subset and the second subset are defined so that when a plurality of 2-D images are rendered from the 3-D gaming environment to capture the movements of the planar rectangular surface or the curved portion of the outside of the cylinder are viewed on the display screen, the symbols drawn on the planar rectangular surface or drawn on the curved portion of the outside of the cylinder appear to enter and to leave the display screen in an order specified by the sequence of symbols determined for each virtual reel strip;

According to the Examiner's Answer, "The art states a two dimensional object transforming to spinning in 3D (pg. 5, par. 3, lines 7-8), thus the transformed object must be a 3D surface model in a 3D environment." (Page 9, lines 2-3). An argument that a claimed feature is inherent in a reference must be supported by extrinsic evidence showing that "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." (MPEP 2112, § IV). No such evidence is provided in the rejection of the claims or in the Examiner's Answer.

Applicant does not dispute that video slot reels existed at the date of filing. However, the existence of a video slot reel, even if appearing three dimensional, is insufficient to anticipate or make obvious the claimed invention because Ellis is not clear in regards to how the images are generated. The specification makes clear that there exist techniques for displaying objects that appear three dimensional without performing the operations recited in the claims. (Page 16, lines 1-32 and page 17, lines 1-20). Any image or video presented on a 2-D display screen is necessarily 2-D, even if it shows a 3-D object. However, in conventional gaming machines, such videos were pre-generated animations or movies that only used 2-D information to display video images. (Page 16, lines 19-29). For example, a video of a spinning three dimensional slot reel could be created and saved at a different

device (e.g., through animation), and then replayed at the slot machine. (Page 16, lines 1-10). Under such a system, it would not be possible, for example, to generate a new 2-D view of the slot reel because the gaming machine does not have underlying 3-D information about the object displayed in the 2-D image. (Page 16, lines 19-29). Moreover, using pre-generated animations or movies was the state of the art at the time the invention was made. Such techniques were used because, for example, “it was not feasible to store large amounts of game data relating to a complicated 3-D model.” (Page. 16, lines 7-8).

In contrast, the pending claims recite a method and apparatus in which symbols are drawn on a 3-D model generated in a 3-D gaming environment, a plurality of 2-D images are rendered from the 3-D gaming environment, and the plurality of 2-D images are then displayed on the display device. As discussed herein, generating a 3-D model of a slot reel and rendering a plurality of 2-D images of the 3-D model is fundamentally different than displaying a pre-generated animation or movie, regardless of whether the pre-generated animation or movie appears three dimensional. Since the spinning slot reel described in Ellis could be displayed without performing the operations recited in the claims, the operations are not inherent in the teachings of Ellis.

Again, the state of the art at the time of filing was to use pre-generated animations or movies rather than the techniques described and claimed in the present application, and no evidence has been provided that the appearance of a spinning slot reel illustrated in Ellis is created according to the techniques recited in the claims. Indeed, Ellis provides no details as to how the slot reel illustrated in Figure 2 is created. In the absence of such details, it can’t be said that the features cited in the pending claims are necessarily present and hence inherent.

3. Entering and Leaving the Display Screen and the Subsets of Symbols

Applicant respectfully submits that the interpretation of “appear to enter and to leave the display screen” is inconsistent with the claim language. The Examiner’s Answer suggests that Ellis discloses such a feature simply because Ellis displays a video slot reel. (Page 9, lines 12-19). However, the claims are not directed to all video slot reels in which symbols appear to enter and leave the display screen, but rather to particular techniques in which such an effect is created. For example, the claims recite:

viii) moving the planar rectangular surface or the curved portion of the outside of the cylinder including the second subset of the sequence of symbols from the first position to the second position in the 3-D gaming environment; wherein the

first subset and the second subset are defined so that when a plurality of 2-D images are rendered from the 3-D gaming environment to capture the movements of the planar rectangular surface or the curved portion of the outside of the cylinder are viewed on the display screen, the symbols drawn on the planar rectangular surface or drawn on the curved portion of the outside of the cylinder appear to enter and to leave the display screen in an order specified by the sequence of symbols determined for each virtual reel strip.

An example of this technique for motion generation is described with respect to FIGURES 3A-3G in the specification. As is shown in the figures, an object is generated in a 3-D gaming environment (e.g., in a 3-D coordinate system). A first subset of symbols is mapped on to the surface of the object, and the object is moved from the first position to the second position. Then, the object reappears at its original position and is mapped with a second subset of symbols, and it is again moved from the first position to the second position. A plurality of 2-D images are rendered of the object as it is moving in the 3-D gaming environment. Displaying these images in succession on the video display creates the appearance of images entering and leaving the display screen. Further details regarding how this effect is created are discussed in the appeal brief and in the application as filed, for example on pages 35-43.

Selecting entirely different sets of symbols for the first and second subsets of symbols would not create the appearance of motion. Thus, the suggestion in the Examiner's Answer that the pre-spin and post-spin subsets of symbols illustrated in Ellis are analogous to the first and second subsets of symbols recited in the claims is incorrect, since the slot reel in Ellis presumably displays many other subsets of symbols between the pre-spin symbols and post-spin symbols. (Examiner's Answer, page 10, lines 1-3). Further, the claims make clear that it is the movement from the first position to the second position that creates the appearance of symbols entering and leaving the display, but as discussed herein, Ellis provides no details as to how the displayed slot reel is generated.

Again, the operations recited in the claims relate to the generation of the appearance of motion by moving a virtual object within a 3-D gaming environment and rendering a plurality of 2-D images of that object. Since Ellis makes no mention of any 3-D environment or any rendering, Ellis necessarily fails to anticipate or make obvious the claimed invention.

Summary

For the reasons given in this reply brief and in the appeal brief, it is respectfully submitted that none of the pending claims are anticipated or reasonably suggested by Ellis, Gauselmann, or Abbott, either alone or in combination, and that the rejections of the pending claims in the Final Office Action under are therefore erroneous. Accordingly, it is respectfully requested that the pending rejections of all claims be reversed.

Respectfully Submitted,
Weaver Austin Villeneuve & Sampson LLP

/David P. Olynick/

David P. Olynick
Reg. No.: 48,615

P.O. Box 70250
Oakland, CA 94612-0250
(510) 663-1100